

WHAT IS CLAIMED IS:

1. A method for repairing a component within a SWET box, said method comprising:

providing a SWET box having a divided interior volume such that a welding chamber is defined within the interior that is smaller than a total volume of the interior SWET box;

positioning a component to be repaired within the welding chamber;

introducing protective gas into the SWET box; and

controlling the flow of protective gas into the SWET box to facilitate minimizing the consumption of the protective gas within the SWET box.

2. A method in accordance with Claim 1 wherein controlling the flow of protective gas into the SWET box further comprises concentrating the flow of protective gas in the welding chamber.

3. A method in accordance with Claim 1 wherein dividing the SWET box comprises positioning a compartmentalized insert in the SWET box, the insert including a welding chamber.

4. A method in accordance with Claim 1 wherein introducing the protective gas into the SWET box comprises introducing the protective gas from an upper portion of the SWET box.

5. A method in accordance with Claim 1 wherein controlling the flow of the protective gas into the SWET box comprises introducing the gas through diffuser cups.

6. A method in accordance with Claim 2 wherein concentrating the flow of protective gas in the welding chamber comprises introducing the protective gas from an upper portion of the welding chamber and a lower portion of the welding chamber.

7. A method in accordance with Claim 6 wherein introducing the protective gas from the lower portion of the welding chamber comprises introducing the gas through perforated diffusing tubes.

8. A liner assembly for a SWET box, said liner assembly comprising:

an enclosure configured to be received in a heating chamber of the SWET box, said enclosure comprising a rear wall, a front wall opposite said rear wall, a pair of opposed end walls, and a dividing wall defining a welding chamber therein;

a gas delivery system for supplying a protective gas into the SWET box and said enclosure; and

a lid coupled to the SWET box and extending over the heating chamber and said enclosure, encasing the heating chamber and said enclosure.

9. A liner assembly in accordance with Claim 8 wherein said enclosure dividing wall further defines a cavity adjacent to said welding chamber, one of said end walls comprising an arcuate wall that partially borders said cavity.

10. A liner assembly in accordance with Claim 8 wherein said welding chamber comprises a side wall having a window open to a heating source in a wall of the heating chamber for supplying heat energy to said welding chamber.

11. A liner assembly in accordance with Claim 8 wherein said gas delivery system includes a diffuser positioned adjacent a floor of said welding chamber, said diffuser coupled to a protective gas source through said floor of said welding chamber.

12. A liner assembly in accordance with Claim 11 wherein said diffuser comprises an array of perforated tubes.

13. A liner assembly in accordance with Claim 11 further comprising a blade support positioned above said diffuser, said support including a perforated base in flow communication with said diffuser.

14. A liner assembly in accordance with Claim 13 wherein said blade support is separated from said diffuser by a layer of mesh material.

15. A liner assembly in accordance with Claim 8 wherein said gas delivery system includes a plurality of diffuser cups coupled to said lid.

16. A SWET box comprising:

a heating chamber;

an enclosure configured to be received in said heating chamber, said enclosure comprising a rear wall, a front wall opposite said rear wall, a pair of opposed end walls, and a dividing wall defining a welding chamber therein;

a gas delivery system for supplying a protective gas into said heating chamber and said enclosure; and

a lid coupled to said heating chamber and extending over said heating chamber and said enclosure, encasing said heating chamber and said enclosure.

17. A SWET box in accordance with Claim 16 wherein said welding chamber comprises a side wall having a window open to a heating source in a wall of said heating chamber for supplying heat energy to said welding chamber.

18. A SWET box in accordance with Claim 16 wherein said gas delivery system includes a diffuser positioned adjacent a floor of said welding chamber, said diffuser coupled to a protective gas source through said floor of said welding chamber.

19. A SWET box in accordance with Claim 18 wherein said diffuser comprises an array of perforated tubes.

20. A SWET box in accordance with Claim 16 wherein said gas delivery system includes a plurality of diffuser cups coupled to said lid.